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| 10/050,750 | 01/16/2002 | Wai William Wang | 39524.1000 | 7722 |
| 20322 | 7590 | 12/16/2005 | EXAMINER | |
| SNELL & WILMER ONE ARIZONA CENTER 400 EAST VAN BUREN PHOENIX, AZ 850040001 | | | PATEL, GAUTAM | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2656 | |

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,750

Applicant(s)

WANG ET AL.

Examiner

Gautam R. Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12-17-03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5 and 7 are pending for the examination.

RCE STATUS

2. The request filed on 101-7-05 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bletscher, Jr. et al., US. Patent 5,070,495 (hereafter Bletscher).

As to claim 1, Bletscher discloses the invention as claimed, an optical power calibration method [see Figs. 1-8, especially 4 and 6] including providing data to be written, determining a writing location of the data, and performing an optical power calibration process, comprising the steps of:

providing data to be written on the data storage area [col. 4, lines 17-42; col. 5, lines 58-61];

before writing that data in the data storage area, determining a writing location [locations such as innermost or outmost] of the data in the data storage area [col. 8, lines 1-8; col. 5, lines 58-61];

depending on the determined writing location in the data storage area, performing an optical power calibration process either, in the first power calibration area [innermost tracks; see fig. 4] when the writing location being within a predetermined portion of the data storage area or in the second power calibration area when the writing location being out of the predetermined portion; and

controlling the access device to write the data into the writing location of the data with a calibrating writing power [col. 5, lines 58-61 & col. 8, lines 45-60].

4. The aforementioned claim 2, recites the following steps, inter alia, disclosed in Bletscher: data storage area is divided into an inner area [fig. 4, area 110] and an outer area [fig. 4, area 114], and the predetermined portion is the inner area, when the writing location is located within the inner area, performing the optical power calibration process in the first power calibration area, and when the writing location is located in the outer area, performing the optical power calibration process in the second power calibration area [col. 10, lines 15-34 and col. 10, line 55 to col. 11, line 14].

5. The aforementioned claim 4, recites the following steps, inter alia, disclosed in Bletscher: the carrier player controls rotation of the optical storage carrier in a constant angular velocity (CAV) [constant rotational speed] manner [col. 8, lines 9-26].

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bletscher as applied to claims 1-2 above in view of Suga et al., US. patent 6,418,102 (hereafter Suga).

As to claim 3, Bletscher discloses all of the above elements, including a multiple power calibration locations at a constant rotational speed or CAV. Bletscher does not specifically

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discloses that the speed can also be controlled in a linear velocity (CLV) manner to the extent claimed.

However, controlling speed in CAV and CLV manner has been known in the art for a very long time. Also Suga clearly discloses:

the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner [Fig. 6B and col. 8, line 53 to col. 9, line 20].

Both Bletscher and Suga are interested in improving the laser power calibration method in an optical disk device. Both show different area for power calibration.

One of ordinary skill in the art at the time of invention would have realized that the in recent years, there has been a clear trend for a faster transmission than the standard transmission rate with respect not only to playback of an optical disk but also to recording and faster more accurate recording will be a good feature to have in the system of Bletscher.

Therefore, it would have been obvious to have also used a CLV manner of speed control [along with CAV manner] in the system of Bletscher as taught by Suga because one would be motivated to record data even at the CLV manner of speed control and make system faster and more accurate for CLV formatted disks, thus increasing the versatility of system [col. 1, lines 58-63 and col. 2, lines 4-12; Suga].

7. The aforementioned claim 5, recites the following steps, inter alia, disclosed in Suga:
the data storage area comprises two data segments, and the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner when the access device writing data onto one data segment, and each data segment having a different linear velocity [Fig. 6A and 6B and col. 8, line 53 to col. 9, line 20 and col. 1, lines 36-63].

8. Claim 7 is are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bletscher as applied to claims 1-2 above, and further in view of Ikeda et al., US. patent 6,067,284 (hereafter Ikeda).

As to claim 7, Bletscher discloses all of the above elements, including a multiple power calibration locations at a constant rotational speed, including location of 114, which is close to

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outer edge. Bletscher does not specifically disclose that the location is last possible lead-out area to the extent claimed.

However, locating PCA in the lead-in is well known [as shown by Bletscher] and also based on the Orange Book standard has been known in the art for a very long time.

Also Ikeda clearly discloses:

the optical storage carrier further comprises a last possible lead-out area located close to the outer edge [fig. 17, area 238] of the optical storage carrier for storing ending information about data written on the optical storage carrier, and the second power calibration area is located within the last possible lead-out area [col. 18, lines 4-26 and Figs. 17 to 18B].

Both Bletscher and Ikeda are interested in improving the laser power calibration method in an optical disk device. Both show different area for power calibration.

One of ordinary skill in the art at the time of invention would have realized that different locations on the disk require different speeds and calibrating power with respect to location will be a good feature to have in the system of Bletscher.

Therefore, it would have been obvious to have also used a lead-out area of power calibration in the system of Bletscher as taught by Ikeda because one would be motivated to calibrate the data which is location specific and thus improve accuracy of recording and hence playback in the system, especially high density recording environment of modern system.

9. Applicant's arguments filed on 10-17-05 have been carefully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "Clearly these limitations are not nowhere to be found in the Bletscher reference.

.... power calibration process is performed only either in the first power calibration area or in the second power calibration area, but NOT [original emphasis] in the data storage area. After the calibration process is done, data provided is going to be written only in the data storage area, NOT in power calibration area" [page 1 and 2, paragraph 4 & 1; REMARKS].

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FIRST: It seems the Applicants are making blanket statement to the fact that Bletscher meets none of the limitations listed in front of this paragraph.

SECOND: The limitation that power calibration is done in its own area and not in data area is an inherent aspect. Even if that is not true. This aspect has not been claimed.

THIRD: Bletscher clearly discloses that he is assigning a single track for calibration [col. 5, lines 19-21], so obviously data cannot be recorded in that area.

B) That; "The first step 11 repeatedly records a pulse train 12 on optical disk 30 along an ENTIRE length of a magneto-optic track.

Therefore Bletscher's binary data pattern 12 is unable to apply to the present invention, in which the optical power calibration is not performed on the entire optical storage carrier, but rather only in either inner power calibration area or the outer power calibration area." [page 2, paragraph 2; REMARKS].

FIRST: It seems the Applicants are contradicting themselves here. First they are saying that pattern 12 on a single track. Afterwards they are arguing [in same paragraph] that entire optical storage is calibrated by Bletscher.

SECOND: Careful reading of Bletscher shows that he is selecting outer and inner areas for calibration [see summary and ABSTRACT] and he also gives reason for it.

THIRD: This kind of calibration at innermost and outer most tracks is also well known as clearly shown by Bletscher, [see col. 2, lines 37-53].

ALTERNATE REJECTION

Claim Rejections - 35 U.S.C. § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 are rejected under 35 U.S.C. § 102(e) as being anticipated by Suga et al., US. patent 6,418,102 (hereafter Suga).

As to claim 1, Suga discloses the invention as claimed, an optical power calibration method [see Figs. 1-5, especially 3] including providing data to be written, determining a writing location of the data, and performing an optical power calibration process, comprising the steps of:

providing data to be written on the data storage area [fig. 3, area 32];

before writing that data in the data storage area, determining a writing location [fig. 3, location such as 33-1 or 33-3 etc. must be decided, to make sure you do not over write data that is already present] of the data in the data storage area determining a writing location [fig. 3, location 32] of the data on the data storage area;

depending on the determined writing location in the data storage area, performing an optical power calibration process either, in the first power calibration area [31a; see fig. 3] when the writing location [fig. 3, 33-1] being within a predetermined portion [fig. 3, portion 31 to 33-3] of the data storage area, or in the second power calibration area when the writing location being out of the predetermined portion [area 32]; and

controlling the access device to write the data into the writing location of the data with a calibrating writing power [col. 5, line 60 to col. 6, line 51 and col. 7, lines 36-63].

NOTE: Suga discloses all of the above elements, including plurality of recording areas and addresses on a storage medium. Suga is silent about the fact that a data storage area located between the first power calibration area and the second power calibration area.

However, the preamble is not given the effect of a limitation unless it breathes life and meaning into the claim. In order to limit the claim, the preamble must be “essential to point out the invention defined by the claim.” *Kropa v. Robie*, 88 USPQ 478, 481 (CCPA 1951).

Therefore preamble is considered non-limiting, and is not given patentable weight, as it does not breath life and meaning into the claim [M.P.E.P. 2111.02].

11. The aforementioned claim 2, recites the following steps, inter alia, disclosed in Suga:

data storage area is divided into an inner area and an outer area, and the predetermined portion is the inner area, when the writing location is located within the inner area, performing

the optical power calibration process in the first power calibration area, and when the writing location is located in the outer area, performing the optical power calibration process in the second power calibration area [col. 5, line 60 to col. 6, line 51 and col. 7, lines 36-63].

12. The aforementioned claim 3, recites the following steps, inter alia, disclosed in Suga: the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner [Fig. 6B and col. 8, line 53 to col. 9, line 20].

13. The aforementioned claim 4, recites the following steps, inter alia, disclosed in Suga: the carrier player controls rotation of the optical storage carrier in a constant angular velocity (CAV) [constant rotational speed] manner [col. 8, lines 53-62].

14. The aforementioned claim 5, recites the following steps, inter alia, disclosed in Suga: the data storage area comprises two data segments, and the carrier player controls rotation of the optical storage carrier in a constant linear velocity (CLV) manner when the access device writing data onto one data segment, and each data segment having a different linear velocity [Fig. 6A and 6B and col. 8, line 53 to col. 9, line 20 and col. 1, lines 36-63].

Claim Rejections - 35 U.S.C. § 103

15. Claim 7 is are rejected under 35 U.S.C. § 103(a) as being unpatentable over Suga as applied to claims 1-5 above, and further in view of Ikeda et al., US. patent 6,067,284 (hereafter Ikeda).

As to claim 7, Suga discloses all of the above elements, including a multiple power calibration locations at a constant rotational speed, including location of 114, which is close to outer edge. Suga does not specifically discloses that the location is last possible lead-out area to the extent claimed.

However, locating PCA in the lead-in is well known [as shown by Suga] and also based on the Orange Book standard has been known in the art for a very long time.

More importantly, Ikeda clearly discloses:

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the optical storage carrier further comprises a last possible lead-out area located close to the outer edge [fig. 17, area 238] of the optical storage carrier for storing ending information about data written on the optical storage carrier, and the second power calibration area is located within the last possible lead-out area [col. 18, lines 4-26 and Figs. 17 to 18B].

Both Suga and Ikeda are interested in improving the laser power calibration method in an optical disk device. Both show different area for power calibration.

One of ordinary skill in the art at the time of invention would have realized that different locations on the disk require different speeds and calibrating power with respect to location will be a good feature to have in the system of Suga.

Therefore, it would have been obvious to have also used a lead-out area of power calibration in the system of Suga as taught by Ikeda because one would be motivated to calibrate the data which is location specific and thus improve accuracy of recording and hence playback in the system, especially high density recording environment of modern system.

Other prior art cited

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Romeas et al. (US. Patent 4,631,713) "Calibration device".

Contact Information

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is 703-872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Wayne Young can be reached on (571) 272-7582.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.



GAUTAM R. PATEL
PRIMARY EXAMINER

Gautam R. Patel
Primary Examiner
Group Art Unit 2655

December 12, 2005